

PROVIDING

- Geotechnical Engineering
- Construction Materials Engineering
- Environmental Engineering
- Drilling Services

October 9, 2001 Project No. 97664V3

Ms. Brenda Pohlmann Nevada Division of Environmental Protection 555 E. Washington, Suite 4300 Las Vegas, NV 89101-1049

RE: Results of monthly surface water sampling of the Las Vegas Wash at the Northshore Road Bridge.

Dear Ms. Pohlmann:

Per your request, Geotechnical & Environmental Services, Inc. (GES) obtained a surface water sample from the Las Vegas Wash on September 27, 2001 near the Northshore Road Bridge. We sent this sample, under chain-of-custody protocol, to NEL Laboratories (NEL) for laboratory analysis of perchlorate. NEL's analysis revealed a perchlorate concentration of 460 micrograms per Liter (μ g/L). The NEL report is included with this letter, along with a both a Perchlorate Summary Tables for 2000 and 2001.

Our services were performed using that degree of care and skill ordinarily exercised under similar circumstances by reputable engineering firms in this or similar localities. No other warranty, either express or implied, is included or intended in this report. We appreciate this opportunity to provide our services. If you have any questions regarding these results, please feel free to call us at 365-1001.

Sincerely,

Geotechnical & Environmental Services, Inc.

Richard Cooke Staff Geologist

Rielard Coole

Daniel C. Burns, C.E.M.* #1692 (Expires 10/07/2003)

Project Manager

*"I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."

Enc: 2000 & 2001 Perchlorate Summary Tables

NEL Analytical Report

Dist: 1 original mailed to addressee 1 faxed to addressee at 486-2863

cc: fax to Jeff Gibson, American Pacific Corporation

cc: tax to Jeff Gibson, American Pacific Corporation cc: mail to Kevin Mayer, USEPA SFD 72, 75 Hawthorne Street, San Francisco, CA 94105

cc: to project file 97664V3

7150 Placid Street Las Vegas, NV 89119 (702) 365-1001 • Fax (702) 341-7120 www.gesnevada.com

Las Vegas Wash at Northshore Road Bridge 2000 Summary of Perchlorate Concentrations

Date Sampled	Perchlorate (μg/L)
1/27/00	569
2/28/00	720
3/29/00	870
4/27/00	750
5/30/00	740
6/28/00	410
7/27/00	650
8/28/00	510
9/27/00	430
10/26/00	340
11/29/00	370
12/26/00	320

Las Vegas Wash at Northshore Road Bridge 2001 Summary of Perchlorate Concentrations

Date Sampled	Perchlorate (μg/L)
1/25/01	280
2/27/01	350
3/27/01	480
4/26/01	320
5/29/01	240
6/27/01	400
7/25/01	550
8/27/01	420
9/27/01	460

NEL LABORATORIES

Reno • Las Vegas Phoenix • Boise Las Vegas Division 4208 Arcata Way, Suite A • Las Vegas, Nevada 89030 **702-657-1010** • Fax: 702-657-1577

1-888-368-3282

CLIENT:

Geotechnical & Env. Serv.

7150 Placid

Las Vegas, NV 89119

ATTN:

Dan Burns

PROJECT NAME:

Las Vegas Wash

PROJECT NUMBER: 97644 V3

NEL ORDER ID: L0109277

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 9/27/01.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Stan Van Wagenen Laboratory Manager

CERTIFICATIONS:

Reno Las Vegas S. California AZ0520 AZ0518 AZ0605

2264

Arizona AZ0520 AZ0518 California 1707 2002

US Army Corps Certified Certified of Engineers

Idaho Montana Nevada

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Reno Las Vegas S. California
Certified Certified
Certified Certified

NV033 NV052

CA084

L.A.C.S.D.

10228

NEL LABORATORIES

CLIENT: PROJECT ID: Geotechnical & Env. Serv.

PROJECT #:

Las Vegas Wash

97644 V3

Inorganic Non-Metals

MATRIX:

TEST:

Aqueous

CLIENT ID:

Northshore Road Bridge-9-27-01

DATE SAMPLED: 9/27/01

NEL SAMPLE ID: L0109277-01

PARAMETER	RESULT	R. L.	<u>D. F.</u>	METHOD	UNITS	ANALYZED
Perchlorate	460	40.	10	EPA 314	μg/L	10/2/01

R.L. - Reporting Limit

D.F. - Dilution Factor

ND - Not Detected

NEL LABORATORIES

CLIENT:

Geotechnical & Env. Serv.

PROJECT ID:

Las Vegas Wash

PROJECT #:

97644 V3

CLIENT ID:

Method Blank

DATE SAMPLED: NA

NEL SAMPLE ID: 011002CLO4-BLK

TEST:

Non-Metals

REPORTING

RESULT

LIMIT

D. F.

METHOD

UNITS

ANALYZED

Perchlorate

PARAMETER

ND

4

1

EPA 314

 $\mu g/L$

10/2/01

D.F. - Dilution Factor

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Las Vegas Division •	Las Vegas Division • 4208 Arcata Way, Suite A • Las Vegas, Nevada 89030	Purchase Order Number	ıber:		Sampled By:	× 4	
702-657 C,17 \	702-657-1010 · Fax: 702-657-1577 · 888-368-3282		and the same of th				
Company:	1						
Address:			Analysis				
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Billing Address:	Expected Due Date:	(xo8					
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	3-62-51						
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Relinquished by (Print)	(Signature)	Date/Time,	Received by (Pr	(Print)	(Signature)	Date/Time ,][
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MEL Work Order: UCICY 277 :

CHAIN OF CUSTODY

NEL LABORATORIES

The liability of NEL Laboratories inc. is limited strictly to the price of sample analysis for those samples received in good condition by NEL. NEL is not responsible for loss, damage, resampling costs and/or qualified data related to samples not received in good conditions, and constitutes a prochase order for NEL to perform work and constitutes acceptance of all NEL Standard Terms and Conditions. Signature also constitutes acceptance of NEL Standard List Prices for all services ordered here on, except those specified otherwise via an NEL Quotation for Testing Services in effect at the time of sample receipt. Also, the fax number provided above. Samples received at the requested transcound time will be considered received on the next working day. Commitment of laboratory to the requested transcound time will be considered received on the next working day. Commitment of laboratory to the requested transcound time will be considered received on the next working day.

LETTER OF TRANSMITTAL

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

7150 Placid Street Las Vegas, Nevada 89119 (702) 365-1001 (702) 341-7120 (FAX)

TO:	USEPA SFD 72			Date:	October 9,	2001
	75 Hawthorne Street		PRO	JECT:	Las Vegas	Wash
	San Fransisco, CA 941	05				
ATTN:	Mr. Kevin Mayer		GES PROJE	CT #	97664	V3
WE AR	E FORWARDING THE ITEM	S LISTED BELO	OW VIA:			
	MESSENGER	PICK UP	x	U.S. MAIL		"NEXT DAY"
COPIES	DESCRIPTION					
1	Results of monthly s	urface water s	ampling of	the Las Vega	s Wash at the No	orthshore
	Road Bridge					
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THESE	ITEMS ARE SENT FOR:	REVIEW SIGN & RE		MMENT OTHER	APPROVAL :	USE
REMAR	KS:					······································
THIS M	ATERIAL SENT BY:					
	PLEASE SI	GN AND RETU	JRN ONE CO	OPY OF TRAI	NSMITTAL.	
RECEIV	ED BY:	TIME	# • • • • • • • • • • • • • • • • • • •		DATE:	
OTHER	DISTRIBUTION:					
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If enclosures are not as noted, please notify us at once.